

**Fermilab
FY2002 Self-assessment
Process Assessment Report
For
Technical Division**

23-Sep-2002

Division/Section performing assessment

Technical Division

Name of organization that owns assessed process

Technical Division

Organization Strategy

The proper maintenance of records is important for the successful operation of the Division. The creation of the appropriate records by the appropriate people is critical for understanding what we did in the past, as well as for figuring out where we stand today. The proper management (i.e. indexing, storage, retrieval) of records is critical when it comes to being able to learn from the past so that we can improve our future.

Names of Personnel on Assessment team

Ted Beale, Quality Control Supervisor
Jamie Blowers, Quality Assurance Officer

Name of process assessed

Records management in Technical Division

Brief description of process to be assessed

Records management is a way of managing the information and knowledge that is captured in our records. These records could be either in paper form, or electronic. Both formats need to be managed appropriately.

Are metrics associated with this process? If so, what are they?

There are no contractual or internal metrics for this process.

What are the names of the procedures associated with this process?

Fermilab Records Management Handbook
TD Quality Management Program TD-2010 (section 4.5)
Device Data Management TD-2030

Are these procedures being followed? Are they current?

These procedures are current, and are partially being followed. It should be noted that records are being managed in the Division, but not to the formal degree that is called out in the Lab handbook. It is stated in the policy TD-2010 that the Division follows the Lab program either when asked or when sending records to offsite storage.

Describe the methodology used to assess this process.

The methodology used to assess the process consisted of reviewing the available documentation (i.e. the Lab handbook, TD policy TD-2010, DoE O 200.1) and interviewing personnel involved with records management in the Division.

Results of the assessment:

Overall the implementation of records management in Technical Division is rated **marginal**. There are areas where records are being managed well, and there are areas where they are being managed very informally.

The TD policy makes two statements which are quoted here:

"The Technical Division's practice is to follow the Fermilab Records Management Program either when asked, or when necessary to move records to or from the offsite storage (i.e. archiving)."

"Due to the fact that the content and format of records vary greatly from department to department and project to project, each department and project is responsible for defining and documenting a records management system for their scope of work."

All those interviewed agreed that the first statement above is true. The Division uses the Lab program when using the archiving system, or when asked by the Lab Records Manager. People who use the offsite archiving system appear to understand how the system works, and there appear to be no issues there. This indicates that the system is well thought out and implemented.

The second statement above appears to not be fully implemented. There are examples of Groups where records are defined and managed well. For example, the Process Engineering Group within the Engineering & Fabrication Department does an excellent job at managing production records. A few years ago the Division invested in a scanning and document management system called "OnBase", which is now fully implemented and is being used to digitize all records related to the fabrication of devices in the

Department. The records are organized by document type, and are indexed such that they are readily retrievable (including from the Internet). The paper records are then logged into a database and processed through the Lab archiving system. One of the requirements of the CERN LHC quality assurance plan is that all production records are to be delivered to CERN, along with the magnets. The Division is going to leverage the OnBase scanning system, and send all the LHC production records electronically.

The Division is also using the OnBase system to manage information and knowledge related to the devices managed in the Division (i.e. magnets). A document is created for each device (called a Device Service Record). This record serves as a log for recording all the work done and knowledge gained while managing that device. Each document is indexed with keywords like 'location' and 'status' so that the Division can easily query the database and determine where they stand regarding spares and devices which need to be repaired. These process controls appear to be well defined, and are working rather well (see TD policy TD-2030 Device Data Management).

During the assessment it was also identified that other areas are not being managed much at all. The practice has been to do records management when asked by the Records Manager. This type of request has not been made for many years, and so not much is done formally. One of the File Custodians interviewed did state that she will use the records retention schedules as a resource when she needs to clean out some of her files. It turned out that the records retention schedules she referred to were out of date. She had not been informed that the old hard-copy handbooks (with a copy of DoE O 1324.2B) were obsolete, and so she continued to use that document (it should also be noted that as a result of the assessment she is now aware of the location of the updated handbook and the DoE records retention schedules, and the old handbook has been removed from use).

As a result of the assessment, a few improvements are being suggested, and are described below.

Identified opportunities for improvement

While there are areas within the Division that do records management well, it is clear that records management is not a topic that has been given much overall attention over the last few years. This assessment did not cover the entire Division, but it did provide some evidence that more areas should be looked at. Therefore we suggest the following:

1. Work with the Department Heads to further review the records management needs and practices in each Department. The goal should be to identify how each Department/Group manages records, and compare their practices to the TD policy TD-2010. This process should also be used to remind the File Custodians of the current location of the Lab handbook and records retention schedules.
2. Develop a plan for implementing a reasonable records management system in each Department. The system should take into account the specific requirements that each Department has.

The end result of these improvements should be a converging of Division practice with

Division written policy.

Schedule for implementation of improvements

As this assessment was just completed, and so a schedule is not yet defined. A schedule will be developed in the first quarter of FY2003.

Status of improvements from previous assessment

N/A

Attachments (supporting data, worksheets, reports, etc.)

The following attachments have been incorporated into this report:

"Fermilab Records Management Handbook"

"TD Policy TD-2010" - Excerpts from the TD Quality Management Program which pertain to records management

"TD Policy TD-2030" - The document which describes the Device Data Management System

"Audit Checklist" - Notes from the interview with the TD Records Coordinator

"Audit Records" - Records gathered during the assessment

"OnBase Screenshots" - Screen shots of the OnBase document management system



Fermilab Records Management Program

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I. POLICY

Universities Research Association, Inc. (URA), operator of Fermi National Accelerator Laboratory (Fermilab), is committed under its contract with the Department of Energy (DOE) to maintain an effective program of Records Management implementing DOE Orders and directives on the subject.

The applicable DOE Order that specifically addresses Records Management is DOE Order 200.1, entitled Information Management Program. In addition there are other federal regulations governing records management:

- Federal Records Act - 44 U.S.C. Chapter 31 - Records Management by Federal Agencies
- National Archives and Records Administration - 44 U.S.C. Chapter 21
- Records Management by the Archivist of the United States and by the Administrator of General Services - 44 U.S.C. Chapter 29
- Disposal of Records - 44 U.S.C. Chapter 33
- Paperwork Reduction Act - 44 U.S.C. Chapter 35
- Clinger-Cohen Act - Information Technology Management Reform Act (ITMRA), dated February 10, 1996
- Administrative Procedure - 5 U.S.C. Chapter 5
- The Freedom of Information Act - § 552.
- The Privacy Act - § 552a.

DOE Order 200.1 states that contractors shall "manage information management activities in accordance with applicable laws and regulations." The actual authority for requiring DOE contractors to manage records in accordance with federal regulations stems from the Federal Records Act.

This Handbook provide instructions on the period of time records should be retained as well as preservation and destruction procedures in order to keep the total volume of active records in-house to a working minimum. It also provides for the transfer of inactive records that still need to be retained for a period of time according to the DOE order and federal records retention schedules to an offsite records storage facility.

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II. OBJECTIVES

Specific objectives to be met by the Fermilab Records Management Program are to:

- A. Identify official "records" as opposed to incidental and general work papers, publications, etc. (non-records).
- B. Maintain a Records Inventory & Disposition Schedules (RIDS) form for each department or group, entering all records and work papers (non-records), and indicating their scheduled disposition according to the appropriate federal retention schedules.
- C. At all organizational levels, set up a workable system for retaining

records and storing inactive records in accordance with URA-Fermilab policy, DOE Orders and legal requirements.

D. Contract for the services of a commercial offsite records storage facility which meets federal fire protection regulations for records storage and which provides for timely and low cost storage and retrieval of records.

E. Provide a systematic method for disposition/destruction of outdated records in accordance with the DOE and NARA retention and disposition schedules.

F. Establish guidelines for selecting and identifying archival records.

G. Provide guidance to field personnel for the periodic disposition of inactive and non-records in the office work areas.

H. Respond to DOE Calls for Information on specific records issues and submit replies through the Directorate on behalf of Fermilab as required.

I. Provide a communications forum for the dissemination of information to records field personnel on records management issues and policies.

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III. RESPONSIBILITIES

A. PERSONNEL

Fermilab personnel directly concerned with implementing the above policy are:

- The FILE CUSTODIAN, working with records at the office level
- The RECORDS COORDINATOR representing each major division or section
- The RECORDS MANAGER who oversees this function for the Lab

B. WORKING ORGANIZATION

1. The File Custodians are the individuals who are actually creating, maintaining and utilizing the files and/or filing systems in the various departments or groups at Fermilab. There are others who create records within these departments such as technicians, design engineers, experimenters, etc. but the file custodians represent the "first line" of records field personnel.

2. The Records Coordinators are appointed by their Division or Section Head, to whom they are responsible. The Records Coordinator works directly with the Records Manager and also acts as liaison between the Records Manager and the File Custodians providing control and coordination of the Records Management Program at the

division level.

3. The Records Manager coordinates the records management program at the laboratory and activities of the Records Coordinators and File Custodians. The Records Manager is responsible to the Head of Business Services for the management of the Fermilab Records Management Program. He or she also works with the lab Archivist in identifying and preserving records of value to the scientific mission of Fermilab.

C. DUTIES

1. The File Custodian is responsible for:

- a. Maintaining files and/or records within the departmental work place.
- b. Preparing Records Inventory & Disposition (RIDS) forms by identifying, inventorying, and listing all records and non-records in their area in accordance with the applicable Fermilab, DOE and/or federal records schedule. The RIDS form is submitted to the designated division Records Coordinator for review and approval prior to forwarding to the Laboratory Records Manager.
- c. Preparing records for storage according to instructions contained in this handbook.
- d. Conducting periodic clean-out/housekeeping campaigns to keep the amount of non-record material stored in the office/work place to a minimum. For a helpful guide, see Exhibit E.
- e. Maintaining a records management file for records placed in storage or disposed of for that office/work place.

2. The Records Coordinator is responsible for:

- a. Acting as liaison between the File Custodian(s) and Records Manager and providing assistance to the File Custodian(s) when necessary.
- b. Performing reviews of the RIDS forms prepared by File Custodian(s) prior to forwarding them to the Records Manager.
- c. Acting as the point of responsibility for the records created by that Division or Section, communicating with the Records Manager on issues related to disposition of records series, and the disposal of non records/

inactive records following periods of major personnel reorganizations, etc.

3. The Records Manager is responsible for:

- a. Managing the Fermilab Records Management program in accordance with Fermilab Policy, DOE Orders and various directives issued by DOE and/or the National Archives and Records Administration (NARA).
- b. Preparing, updating, and distributing the Fermilab Records Management Program Handbook which provides information on the retention of records, storage or retrieval, and proper disposition of records.
- c. Conducting and supervising any DOE Records Inventory or other records searches requested by DOE.
- d. Maintaining the official Laboratory files on the Records Management Program at Fermilab.
- e. Maintaining accountability for stored records and summary information on destroyed records.
- f. Preparation and submittal of Fermilab reports as required by DOE.
- g. Arranging for off-site storage of inactive records at the area Federal Records Center or commercial storage facilities that meet federal fire protection regulations for racking and storage of records.
- h. Distribution within the Laboratory of DOE directives regarding Records Management as required.
- i. Maintaining several databases used to track and document inactive records sent to offsite storage, records temporarily retrieved from the storage facility, and records that have been destroyed in accordance with federal disposition regulations.

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IV. PROCEDURES

A. RECORDS MANAGEMENT HANDBOOK

The principal guide for records retention periods is the retention

schedules established by the National Archives (NARA) and DOE in support of federal regulations. The Fermilab Records Management Handbook implements DOE Order 200.1 by providing step-by-step instructions for storing, retrieving and disposing of records. Any questions concerning the Handbook or its contents should be referred to the Records Manager.

B. OFFICE PROCEDURES

1. Create an index for all files in the work areas, listing them under common categories. The index should be updated regularly and can be used as a finding aid for office filing purposes as well as a basis for identifying the types of records series maintained by the department or group.
2. Set up and maintain a "Records Management" file to include all copies of information and forms concerning records stored, as well as an Index of Files in the department and any current RIDS forms. This will allow for tracking of records that have been stored or disposed of and to review records scheduled for destruction.
3. Conduct periodic Clean-Out Campaigns to keep the amount of non-record material stored in the office to a minimum, and to remove record material to a records storage facility when the records are no longer active but need to be kept in accordance with the DOE or federal retention schedules.
4. As employees leave the department, are transferred or retire, coordinate their exit activities to identify records that require retention and make arrangements to transfer these to other employees who will be responsible for them or to send them to inactive records storage if required.

C. RECORDS RETENTION SCHEDULES

Guidelines to determine the periods of time records are required to be maintained can be found in several retention schedules:

General Records Schedules (GRS) A set of record schedules published by NARA (The National Archives and Records Administration) providing retention schedules for records common to most or all Federal agencies.

DOE Administrative Records Schedules (DOE ADMIN) provides for the disposal of DOE records that are common throughout the Department and are normally associated with administrative matters rather than program issues.

DOE Research and Development (R&D) Records Schedule encompasses the records generated from research and development, scientific study and mission specific programs within DOE and its contractor community.

Fermilab Site Specific Records Schedules

A set of Fermilab site-specific records retention schedules is evolving to address records retention issues that are NOT included elsewhere in other schedules, or to specify retention periods which Fermilab has determined that best meet its operating and business requirements. However, it is a requirement that DOE approve the site-specific schedules generated by its contractors. It should be noted that these schedules are unique and specific to each laboratory or DOE facility.

D. UNSCHEDULED RECORDS

If a record series cannot be found under the categories and descriptions provided in the above Records Schedules, it is necessary to request a disposition for that series of records.

The Records Inventory form (EXHIBIT F) should be filled out providing the information requested for each series of records that needs to be scheduled. This information should be as detailed as possible to correctly identify the records and to assist in determining the period of time the records need to be retained. Forward the completed Records Inventory form to the Records Manager.

The description of the records and the retention period will be entered into the Fermilab Site Specific Records Schedule and forwarded to the DOE Chicago office for processing to secure DOE approval of the site specific schedule. Upon approval by DOE and NARA, the schedule will be distributed to records field personnel for inclusion in their handbook.

Unscheduled records cannot be disposed of. If you are unsure whether a record series is scheduled or unscheduled, contact the Records Manager who can assist you.

E. REVIEW OF PROPOSED 'DRAFT' RETENTION SCHEDULES

Periodically, the Fermilab Records Manager is asked to review new proposed records retention schedules that are being drafted by DOE or NARA for implementation by its agencies and/or contractors. It is the policy of the Fermilab Records Manager to forward copies of any pertinent proposed schedules to the groups within the Laboratory who might be affected. Their input is critical to assist in the identification of these records and to determine whether or not the proposed retention periods are feasible or not. These proposed drafts are generally forwarded to the Records Coordinators to obtain replies from their divisions or sections.

F. RECORDS INVENTORY & DISPOSITION SCHEDULE (RIDS) FORM

A Records Inventory & Disposition Schedule (RIDS) form should be submitted to the Records Manager by each division and on request will be updated periodically. The key word above is "Inventory." Once filled out, it will aid in identifying the type and quantity of records in a given work area, as well as specifying the required retention periods for these records. This will be of assistance when conducting clean-out

campaigns, in orienting new personnel, and when filing records as part of a job function.

Blank RIDS forms can be obtained from the Records Manager and are included as an attachment to this Handbook under EXHIBIT A. The following paragraphs are key numbered according to the section numbers on the form.

(1) Number & Page - Enter as appropriate.

(2) Organizational Unit: Enter the office/department name.

(3) Enter date of preparation of form.

(4) Signatures

Enter the name(s) of the person(s) signing below the lines for "Prepared By" and "Approved By." The File Custodian or person preparing the RIDS form should sign the "Prepared By" line. The Records Coordinator should sign on the "Approved By" line. The Division/Section Head or their designee should signed on the "Division/Section Head" line if they choose to be included in this approval chain.

(5) Item No.

Sequentially number the items listed on the form.

(6) Filing Series Title, Description, and Location of file, and inclusive dates:

Enter the name of the file (or record series) together with a brief description of its contents. Inclusive dates are always useful.

(7) Disposition Authority:

a. Enter the retention schedule and paragraph that applies, i.e. DOE Schedule 6, paragraph 1.

b. If there is no schedule that accurately describes the record series, enter "To Be Scheduled" in the column in place of Disposition Authority.

(8) Authorized Disposition Instructions:

Enter the retention period indicated in the retention schedule (i.e. 6 years, 3 months).

(9) Transfer Instructions:

Enter the transfer instructions, if any.

(Example: Hold in office for 3 years, transfer to records storage for 3 years, 3 months).

After the form has been completed and the proper departmental signatures are affixed, forward to the Records Manager for review and approval.

Be sure to maintain a copy of the RIDS form in the "Records Management" file maintained in the department or office workplace.

G. STORING RECORDS

Fermilab contracts with offsite commercial records storage facilities to provide for storage of inactive records.

To store records at the offsite storage facility, the File Custodian or Records Coordinator should follow these steps:

- Use only the official records storage boxes from the stockroom, Stock No. 1350-0285 (Pkg./12).

Note: Records packed in "Xerox" or other unofficial cartons cannot be stored at the offsite facility. Records with different retention dates should not be packed together. If the individual disposal dates vary, then the entire box will be kept until the date of latest disposition. Efficient packing will alleviate records storage volume and keep storage costs low.

- The boxes should be sealed with clear packing tape (not DUCT tape) and clearly marked with the department's box number. Do not use the same number more than once. Each box should have its own individual number so there will be no confusion when attempting to retrieve records.
- Complete the Records Storage & Disposition (RSD) form as indicated in EXHIBIT B. Instructions for completing the form are contained on the reverse side. If additional forms are required, they can be copied from Exhibit B or obtained from the Records Management office.
- Keep a detailed back-up list of all files contained in the boxes in the event it is necessary to retrieve a file in the future, or enter as much detail into the description column (3) on the form so it will be easier to identify.

Note: The information provided is entered electronically into a database maintained by the Records Management office. The amount of detail placed in this database is an exact copy of the detail provided on the RSD form. The level of detail in the description should be sufficient to

easily identify the record so that database searches can be conducted at a later date if it is necessary to retrieve the box. This is especially true in the case of scientific or R&D records which might be retrieved at a much later date by the person originating the storage or by someone who may inherit the records. In some cases this could conceivably span a period of ten years or more.

- Once the form has been completed, it should be forwarded to the Records Manager. The individual box numbers will be entered into a database for tracking and identification purposes. The form is then returned to the individual requesting the storage with labels for each box. These labels show the specific department box number as well as the records management number under which the boxes will be stored.
 - Complete the Material Move Request form (available from the Laboratory Stockroom) in accordance with the example shown in EXHIBIT C. A template of this form usually accompanies the labels, referencing the name of the records storage facility and the current purchase order number covering the storage contract.
 - Each Material Move Request must be signed stating whether or not the box has been checked for radioactivity before it is shipped. In most cases, the boxes will probably be non-hazardous and non-radioactive unless they have been in a beam enclosure or possible radiation exposure area. Sections or Divisions may have different policies for completing this part of the Material Move Request so your Division or Section Radiation Safety Officer can provide information about the signature policy. A signature and an indication of "yes" or "no" must be on the form for the boxes to be moved.
 - The pink copy of the Material Move Request form should be attached to the RIDS form and maintained in the workplace. The yellow copy should be sent to the Records Manager at MS 211. The remaining copies should accompany the boxes for transmittal to the records facility.
- An Input Manifest will often accompany the labels. This document is for internal use only by the records storage facility to enter data electronically into their database for tracking and retrieval of records. Nothing has to be done with this Manifest except to staple it to the Material Move Request that ships with the records boxes.
- Call Dispatch at ext. 3132 to arrange for pickup and to take the boxes over to the Shipping Department.

H. TIMELY RETRIEVAL OF STORED RECORDS:

The offsite Records Storage Facility is secured and access is allowed to authorized personnel only. For this reason any request for retrieval of a box must be coordinated through the Records Manager. The entire sealed records box will be delivered to the requestor's specified onsite location.

The standard retrieval time is 24 hours, with an emergency service available upon request.

There is a designate in case the Records Manager is away from the office. Contact the Business Services Section office to request service in the absence of the Records Manager.

The Records Management office maintains a database for Records Temporarily Retrieved from Storage, noting the box numbers retrieved, the name of the requestor, the date and any other pertinent information related to the retrieval. This database is reviewed quarterly and reminders sent to those requestors who remain in possession of retrieved boxes after three months.

I. RETURNING RECORDS TO STORAGE FOR REFILING:

Before records can be returned to the offsite Records Storage Facility, a Material Move Request form will needed to be completed for a radiation check and a completed Input Manifest form must accompany the box(es). The Input Manifest is available through the Records Management office. The Dispatch office will pick up the boxes from the requestor's physical location.

The Records Management office will make any adjustments in the database for Records Temporarily Retrieved from Storage to reflect the return of these boxes to storage.

J. TRANSFER OF RECORDS TO FEDERAL RECORDS CENTERS (FRC's)

The facilities of the Department of Archives, Federal Records Centers are available for the storage of records that have a long-term or permanent retention.

There are several drawbacks to using the Federal Records Center in Chicago:

- It fails to meet federal fire protection regulations for the storage and racking of records.
- As of the year 2000, all DOE offices or contractors storing records at FRC's prior to their legal transfer to the National Archives will be charged for storage. These fees are generally higher than those for a commercial records facility.

Fermilab has elected to keep its longer-term records at commercial facilities that meet the fire protection requirements and where costs are lower. "If" records are transferred to the FRC, the action will be coordinated between the Fermilab Records Manager and the Federal Records Center

K. DISPOSITION/DESTRUCTION OF STORED INACTIVE RECORDS

Twice annually, the Records Management Office reviews its database of inactive stored records and compiles a list of boxes scheduled for destruction based on the type of record and its retention date.

Prior to destruction, the person who originally stored the records will be notified of the proposed disposition and requested to concur with such disposition within a specified period of time. This serves as a check to verify that correct disposition of the records is being made. In the event it is determined that the records should not be destroyed, the Records Manager, in conjunction with the requestor, will discuss the reason for the additional retention and modify any database information accordingly.

If the proposed destruction of records is appropriate, the requestor will be asked to sign the Disposal Authorization form (Exhibit D) which is then returned to the Records Manager.

The Records Management office will instruct the commercial records storage facility to dispose of the boxes and the Records Management office maintains a copy of the memo authorizing the destruction. In addition, the commercial storage facility provides a Certificate of Destruction to the Records Management office once the destruction has taken place.

A separate database is maintained by the Records Management office listing all destroyed records by box number, date and by requestor.

No inactive records will be destroyed without written permission from the person who originally stored the records or the Records Coordinator for that division if the person is no longer available to do so.

L. CONDUCTING HOUSE CLEANING OF NON RECORDS

Exhibit E has been provided for guidance and lists nonrecord material that can be safely disposed of in-house after it is no longer needed for routine business. Most periodicals, newspapers, manuals fall into this category.

If there are any questions concerning what is a "record" and what is a "nonrecord," guidance is available from the Records Management Office. It has been the custom of this office to lend direct field supervision during major reorganizations and house cleaning campaigns to confirm what needs to be maintained and what can be disposed of safely. To schedule such a visit, call the Records Management office.

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V. How long should I keep records

or

Accessing the DOE website for the Records Retention Schedules

The Department of Energy now provides the federal and DOE specific Records Retention Schedules online at the following website:

<http://cio.doe.gov/Records/dissched.htm>

The primary retention schedules used by Fermilab are:

DOE Administrative Records Schedules that provide for the disposition of DOE records associated with administrative matters. (Replaced what we referred to previously as the GRS schedule). <http://cio.doe.gov/Records/adminrs.htm>

DOE Research and Development (R&D) Records Retention Schedule that encompasses research and development (R&D) records generated within the Department of Energy (DOE) complex and its contractor organizations, such as national laboratories. These are generally mission-specific records dealing with program records, records of experiments, etc. <http://cio.doe.gov/Records/rs-r&d.pdf>

DOE Draft Environmental Records Schedule provides for the disposition of all DOE environmental records created or received to comply with or needed to support compliance with Federal and state laws and implementing regulations. This is still in draft form. <http://cio.doe.gov/Records/rs-environmental.pdf>

By clicking on the Schedule title shown on the web page, you will then see a new screen with the index for each and can work your way to the retention paragraph you are searching for. "Finds" can be conducted easily as well (using the Control F keys on your keyboard). Contact the Fermilab Records Management office if you want a hardcopy of these schedules (which can be printed from the website) or if you are unable to find a retention period for your records.

Attached are the Indices for the various Records Retention Schedules that can be directly accessed from the DOE website. <http://cio.doe.gov/Records/dissched.htm>

These can be downloaded and printed to hardcopy should you want to maintain them in a binder. Otherwise, you are free to access them online.

If you cannot find the retention schedule for a series of records, please contact the Records Management Office.

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VI. EPI Moratorium

The moratorium preventing us from destroying certain specific series of records is still in effect. The list of these records covers a broad range of subjects.

These records have been determined to be useful in identifying employees, the locations where they worked, or conditions under which they worked and may also

contain information regarding radiation protection programs, human experimentation with radiation and/or the releases of radiation into the atmosphere.

Before making the decision to authorize the destruction of any records, please check them against the list that follows.

Should the volume of these records become an issue in the workplace (i.e. taking up too much space), they can be stored offsite by using the procedures described under Section G of this Handbook, Storing records.

If there are any questions about how to interpret this index or about the moratorium, please contact the Fermilab Records Manager.

Exhibits A through G

To view the Exhibits A through G, please contact the Records Coordinator for your Division or Section or the File Custodian for your department. The list of coordinators and custodians is shown on the Records Management home page.

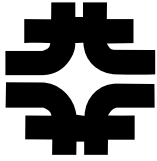
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RECORDS STORAGE AND DISPOSITION (RSD)

[illegible]



The following represents a listing of the types of documents defined as controlled documents for the Technical Division:

- [1] TD Policies and Procedures Manual (this includes the division quality program and its related documents)
- [2] Departmental and project quality programs/plans
- [3] Departmental procedures, work instructions, and specifications
- [4] CAD drawings

4.5 Records Management

The proper maintenance of records is important for the successful operation of the division. Records management begins with the creation of records. The creation of the appropriate records by the appropriate people is critical for understanding what we did in the past, as well as for figuring out where we stand today. *We must view the work of maintaining records as important as the work for which the record is about.*

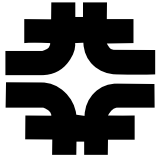
Records can normally be categorized as either administrative or technical. The main focus of Technical Division records management is on the technical records. The general policy of the division is to maintain technical records of a device for as long as the device is in service or has a possibility of being placed into service.

Records can come in two formats, hardcopy and electronic, and our records management program must be able to handle both types. Defining how we handle paper records is, in many ways, simpler than defining how we handle electronic records. Electronic records have the added complexity of platform and software dependence, which over time can cause some records to be irretrievable. In choosing an electronic records management system future migration needs must be considered. As platforms become obsolete critical data must be migrated to current systems.

Retention and accessibility of records can generally be described in the following ways:

- Records are retained in the immediate work area. Most people have access to them;
- Records are retained onsite, but not in the immediate work area. Fewer people have access to them;
- Records are retained in offsite storage. Minimal access is provided.

It should be noted that the main offsite storage is only for paper records, but that retention and accessibility issues can be applied to both paper and electronic records.

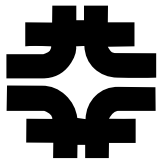


Due to the fact that the content and format of records vary greatly from department to department and project to project, each department or project is responsible for defining and documenting a records management system for their scope of work. Each system should take into account the following guidelines:

- The "major" record types should be defined, i.e. the ones critical to the mission of the department or project;
- The format(s) for each record type should be defined. Electronic records should include the appropriate technical details such as platform and software. For records that are in both paper and electronic forms, the primary form should be defined;
- A responsible authority for each record should be defined. Job titles or group names are most appropriate;
- The storage location for each record type should be defined. Records should be stored in a way that they are readily retrievable and stored in an environment that protects the records from damage, deterioration, or loss (archived records are not subject to the "readily retrievable" requirement);
- Retention and accessibility practices for each record type should be defined.

Appendix A contains references to various records management tools that are currently in use in the division.

The Technical Division's practice is to follow the Fermilab Records Management Program either when asked, or when necessary to move records to or from the offsite storage (i.e. archiving). Refer to Appendix A for the most current location of this program.



Section 3:

Technical Division Self-Assessment Program TD-2020

Hard-copy distribution in TD Headquarters. Electronic version maintained in the "OnBase" document management system under "TD Quality Assurance",
URL <http://td-docs.fnal.gov/webdms/login.asp>.

Performance Review

<http://fnalpubs.fnal.gov/policyguide/art01set.html> (article 25)

See also <http://fnalpubs.fnal.gov/lssection/2000review.html>, and replace the year with the current year.

Section 4:

Fermilab Records Management Program

<http://www-bss.fnal.gov/RecordsManagement/handbook.html>

DOE Records Management

<http://www-it.hr.doe.gov/records/>

General Records Schedule 20 - Electronic Records

<http://andor.nara.gov/grs/grs20.htm>

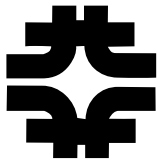
36 CFR Part 1234 - NARA Electronic Records Management

<http://www.access.gpo.gov/nara/cfr/cfr-table-search.html> (there are various search methods, choose one that suits your needs)

Technical Division records management tools:

OnBase[®] document/records management system

<http://tdserver1.fnal.gov/proeng/>



TD Technical Notes

Used to document, publish and organize results of work activities. Speak with [Sharon Spatafora](#) about the details of this system. Documents can be downloaded from <http://tdserver1.fnal.gov/tdlibrary/TD-Notes/>.

Fermilab Drawing Control System (DCS)

<http://www-cad.fnal.gov/groupinfo/dcs/dcsinformation.html>

Section 5:

Fermilab ES&H Manual

http://www-esh.fnal.gov/home/esh_home_page.html ("Manuals and Procedures")

Device Data Management System TD-2030

Hard-copy distribution in TD Headquarters. Electronic version maintained in the "OnBase" document management system under "TD Quality Assurance",
URL <http://td-docs.fnal.gov/webdms/login.asp>.

Section 6:

TD Technical Notes

All notes available from the TD network at \\tdserver1\project\Tdlbry\TD-Notes (web address <http://tdserver1.fnal.gov/tdlibrary/TD-Notes/>). Some notes available from the web in a searchable database at <http://tdpc84.fnal.gov/cgi-bin/docLib-prd/document.pl>.

FESHM chapters (all found in the Fermilab ES&H Manual):

- 2010 - Planning and Review of Accelerator Facilities and Their Operations*
- 5021 - Overhead Cranes, Hoists and Rigging*
- 5031 series - Pressure Vessels and Piping*
- 5032 series - Cryogenic Systems*
- 5033 - Vacuum Vessel Safety*
- 5034 - Pressure Vessel Testing*
- 5035 - Mechanical Refrigeration Systems*



Fermi National Accelerator Laboratory

Technical Division
Headquarters

Device Data Management System

TD-2030

Janine Blance
Approved, TD Quality Assurance Officer

10/17/00
Date

McKaron
Approved, Engineering & Fabrication Head

10/17/00
Date

John C. Taylor
Approved, Development & Test Head

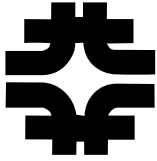
10/18/00
Date

for Gregg Hallerka
Approved, Material Control Head

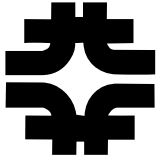
10/19/00
Date

N.J. Quinn
Approved, Technical Division Head

10/19/00
Date



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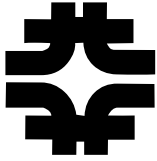


Revision History

Version	Date	Section No.	Specifics
1	10/16/2000	All	First version

Controlled Distribution

Technical Division Library



Introduction

Considering that a device lifetime is more than 20 years, and due to the volume of devices that pass through the division, it is necessary to institute a formal mechanism to track the history of devices. The purpose of this system is to manage information regarding uninstalled devices, and the scope of this system is all accelerator devices while they are under the control of the Technical Division.

It is essential to maintain detailed documentation of all accelerator components, from the early design stage, to all the fabrication and testing processes, continuing through the final installation and operation, and then as repairs or upgrades are completed (installation and operational information is gathered and maintained by Beams Division). Part of the work that we do must include "paper work". Proper records must be maintained in order to hold on to our institutional memory. Our focus should be to maintain records such that we can rather easily understand the work that was done 10+ years down the road.

When a device is assigned to the Technical Division we strive to maintain records with a high level of detail. When it is assigned to other divisions, we include a lower level of detail that is consistent with carrying out our mission. This document is meant to describe the high level of detail by enumerating the various "states" that a device can be in.

To this end, we have defined our "Device Data Management System".

The system is the result of the efforts of the following people:

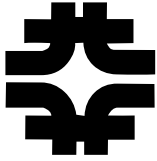
Jamie Blowers
Bob Jensen

John Carson
Jim Rife

Hank Glass
Terry Skweres

Ray Hanft
Brian Smith

Dave Harding
Dan Smith



1.0 Methodology

Our methodology for defining this system was to begin by defining the various "states" that a device could reside within. By state, we mean the condition that a device can be in at any given time, e.g. "Ready to Use", "Awaiting In-Process", et cetera. After defining the states we then defined the inputs and outputs for each state (e.g. data) and who is responsible for each step (e.g. who gathers the data and who makes the next decision based on the data).

The result is a picture that we have called the "Device State Diagram", a.k.a. "spider diagram". Linked to the diagram are the details that define each state.

This document is our method to formally issue and institutionalize this data management system. It is meant to describe the system, and is not intended to be a work instruction that describes every detail of the process. This document can be used as a reference tool to aid the user in making the appropriate decisions as a device travels around the division. A work instruction for the system has been written, and it is entitled "OnBase: Device Service Record Procedure". Both documents are maintained in the device data management system.

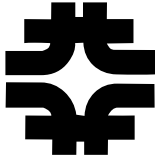
This system is meant to evolve as the need arises. Please contact the TD Quality Assurance Manager with feedback on this system, and with any ideas on how to make it better.

2.0 Mechanics

In this day and age the tool of choice for managing data of any sort is a relational database. Our team decided that we should follow suit, and so we have built our system around an off-the-shelf document management system called "OnBase" (Hyland Software). This software is an electronic document management system that uses Microsoft SQL Server as a backbone. With the combination of using Microsoft Word (used to track the history of the device, log book fashion), and the "meta-data" keywords stored in the SQL database (used to store the current status of the device), we have developed a system which is capable of storing and reporting the appropriate device data. With the addition of the web module, this information can be accessed from anywhere in the world.

2.1 Device Service Records

Device Service Records (DSR) are used to record the history of each device. By service, we mean any action that is done on or to the device. It is made in a log-book fashion, where each entry is completed in chronological sequence, including the date and the name of the person supplying the information (not necessarily the recorder). The entries in the DSR are not intended to provide every detail of the work performed, but they are intended to describe the actions that have taken place



to the device. They should be written so that someone 10 years from now is able to understand what happened.

There are two types of DSRs, one for superconducting devices and another for conventional devices.

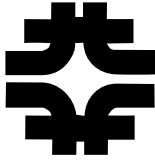
Here is an example:

TD/Engineering & Fabrication		Specification # 5520-FM-333428
		February 2, 2000
		Rev. None
Device Service Record Form for TSFR117		
Date	Comments (Include the following in each DSR entry: What, Where, Why) [Estimated date shown.]	Info Provided By
3/99	TSF117, at MSB, is of status "Ready to Use".	Ray Hanft
2/11/00	Magnet shown in MSB from Material Control MSB Inventory. Approved high quality spare.	Terry Skowers
7/29/00	Correction Stack upgrade and Recooler Upgrade completed. Travelers Closed.	Denny Gaw
7/31/00	This magnet has been retrofit with a recool in the 2 phase system according to print ME-291300 and following the methodology developed from the prototype recool spool TSFR124. Documentation of the recool work is in an E&F notebook currently maintained in IB2 by Dean Sorensen. This magnet also had the correction coil lead stack modification performed to traveler TR-333403 and print MB-351860. This magnet has passed all leak checks and electrical tests pertaining to the upgrades performed. This magnet was moved to IB1 for testing. The device series designator has been changed from TSF to TSFR.	Brian Smith
8/14/00	Alignment of correctors to spool frame completed in IB1 using single stretched wire system.	Joe DiMarco
8/14/00	This device is given the status of "Ready to Use".	Ray Hanft
9/28/00	Verified Magnet at MSB.	Bob Jensen

2.2 Keywords

Keywords are used to identify the current condition of each device. The data stored as keywords are stored in the SQL database, and so they are in a structured format (the DSR is unstructured). This structured format allows us to generate reports from the data upon which we can base work decisions. These reports can include the history of the keywords, i.e. who, what and when the keywords were changed.

Because the keywords are searchable, it is very important to enter the information in a consistent manner. Correct spelling is essential, and the use of the correct names for items will make searching easier, e.g. using "correction coil lead stack" as opposed to "birthday cake". Pull-down menus should be used as much as possible to help with this.



The following are the keywords that are currently in use:

Project - The project that the device is used in, e.g. Tevatron, Main Injector.

Magnet Series - The prefix for the device, e.g. N23, TB.

Serial No. - The current serial number that the device is known by, e.g. TB1222.

AKA Serial No. - Any previous serial numbers that the device was known by.

Location - The last known location for the device, e.g. IB2, MSB, Tunnel.

Location Date - The date when the Location was last confirmed.

Status - The last known status for the device, e.g. Ready to Use, Needs Repair:

Easy, Awaiting E&F Completion: Scheduled (see section 5 for details).

Status Date - The date when the Status was last confirmed.

Rework/Mod Description - A brief description of the modification, including ER/ECO numbers.

Specification No. - The controlled document number for the DSR form.

Specification Revision - Revision level for the DSR form.

Quench Grade - A grade assigned (only for superconducting devices) which rates the device for its quench performance.

All applicable keywords are filled in and updated as the device status and/or location changes.

Here is an example of the keywords:

Add / Modify Keywords

Superconducting Device Service Record

TSFR117 - READY TO USE - GRADE NOT ASSIGNED - 09/28/00 - MSB - MAGNET STORAGE BUILDING - TEVATRON -

Document Date: 09/28/00

Keywords:

Status: READY TO USE

Quench Grade: GRADE NOT ASSIGNED

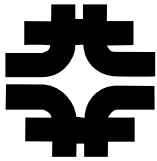
Rework/Mod Description: UPGRADE SPOOL RECOOLER ASSEMBL

Rework/Mod Description: UPGRADE CORRECTION COIL LEAD STA

Save Exit

3.0 Mindset

The majority of our work on devices is mechanical in nature. And since there is usually more mechanical work to be done than there is time in the day, it is easy to get ourselves into a mindset of thinking that the paperwork is not important or that we can take care of it



"after the fact". This mindset has proven to be very troublesome when it comes to figuring out what we did in the past, as well as figuring out where we stand today. In order to begin to maintain adequate quality records we must change our mindsets. *We must view the work of maintaining records as important as the physical construction or repair of the device, and that the work of maintaining our records will make our future work easier.* Until we begin the work of changing our minds, this system will not function to its potential.

4.0 Structure

The overall structure is defined in the Device State Diagram (last page). This diagram defines the various states that a device can be in at any time during its life. Each rectangle represents an action that is done to a device. Each oval represents a queue, i.e. waiting to have something done to it. A black bubble on a rectangle signifies that there is an assessment to be made in that activity.

It should also be noted that the lines connecting the various states are not the only ways that a device can move from one state to another. They are the "normal" ways, when operating under "normal" conditions. Due to the dynamic nature of the work at Fermilab, it is possible for a device to jump from any state to any other state.

As a device moves from state to state, comments are written in the DSR, and the keywords are updated appropriately. A rule of thumb is that a change to the keywords requires a comment in the DSR, but a comment in the DSR may not necessitate a keyword change. For example, if a device is moved from IB2 to MSB, then the location and date keywords are changed, and a comment is written in the DSR. But if a device only has a test completed on it, then a comment is written in the DSR, but the keywords may not change.

5.0 Status Details

For the purposes of this system we have defined status as "the reason that a device is in its particular state". With two exceptions (Drawings, Kits, & Travelers; Under Assessment), every state has one or more possible statuses. We have made the distinction between a state and a status because devices can be in a particular state for many reasons. An example is that a device can be in the state "Awaiting In Process", but it's status could be "Needs Repair: Easy", "Needs Repair: Hard", "Awaiting E&F Completion: Scheduled", et cetera.

Definitions for each status are as follows:

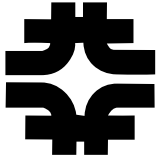
Installed - A device with this status is known to be installed in the accelerator complex.

Corresponding state: In Use

Ready to Use - A device with this status is available to be used in the accelerator complex.

It has been dispositioned by a proper authority and is believed to be able to function properly in it's designated function.

Corresponding state: Ready to Use



Needs Evaluation: Recently Deinstalled - A device with this status has been removed from the accelerator complex and is in need of an evaluation to determine its proper status, and whether or not it needs to be worked on.

Corresponding state: Awaiting Assessment

Needs Evaluation: E&F Work Complete - A device with this status needs to be evaluated because the assembly, repair, or upgrade work is complete. A proper authority needs to determine what the disposition or next work activity is.

Corresponding state: Awaiting Assessment

Needs Evaluation: D&T Work Complete - A device with this status needs to be evaluated because the Magnet Test Facility work is complete. A proper authority needs to determine what the disposition or next work activity is.

Corresponding state: Awaiting Assessment

Needs Evaluation: Special Reassessment - This status is meant to be a "catch-all" status for all other devices that need to be evaluated, but do not fit into the previous categories.

Corresponding states: Awaiting Assessment, In Process - Inactive, Receive from Other

Needs Repair: Easy - A device with this status has been evaluated by TD personnel and has been determined that a repair is required to make it function properly, and that the repair should be "easy". Devices may have this status for a long time, depending on the priorities of work and the desired "good spares" inventory.

Corresponding state: Awaiting In Process

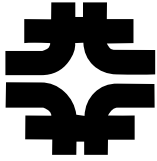
Needs Repair: Hard - A device with this status has been evaluated by TD personnel and has been determined that a repair is required to make it function properly, and that the repair should be "hard". Devices may have this status for a long time, depending on the priorities of work and the desired "good spares" inventory.

Corresponding state: Awaiting In Process

Needs Repair: Very Hard - A device with this status has been evaluated by TD personnel and has been determined that a repair is required to make it function properly, and that the repair should be "very hard". Devices may have this status for a long time, depending on the priorities of work and the desired "good spares" inventory.

Corresponding state: Awaiting In Process

Needs Repair: Unknown Difficulty - A device with this status may or may not have been evaluated by TD personnel. It has been determined that a repair is required to make it function properly and the repair difficulty is unknown. Devices may have this status for a long time, depending on the priorities of work and the desired "good spares" inventory.



Corresponding state: Awaiting In Process

Needs Repair: Autopsy - A device with this status has been evaluated by TD personnel, and it has been determined that a very detailed and thorough investigation is required to understand the fault of the device. For devices in this status the work to determine the cause of the failure may destroy the device. Devices may have this status for a long time, depending on the priorities of work and the desired "good spares" inventory.

Corresponding state: Awaiting In Process

Awaiting E&F Completion: Scheduled - A device with this status is in need of work by E&F, and it has been placed on the job list of active projects for production. Devices should not stay in this status for very long.

Corresponding states: Awaiting In Process, In Process - Inactive

Awaiting E&F Completion: In Process - A device with this status is being worked on by E&F. The status of the work is tracked with the E&F job list. Devices should not stay in this status for very long.

Corresponding states: In Process, In Process - Inactive

Awaiting D&T Completion: Not Scheduled - A device with this status is in need of testing at MTF, but it has not been put on the active schedule. Devices should not stay in this status for very long.

Corresponding state: Awaiting Test

Awaiting D&T Completion: Scheduled - A device with this status is in need of testing at MTF and it has been placed on the active schedule. Devices should not stay in this status for very long.

Corresponding state: Awaiting Test

Awaiting D&T Completion: In Process - A device with this status is being worked on by D&T. The status is tracked with the MTF Test Schedule. Devices should not stay in this status for very long.

Corresponding state: Under Test

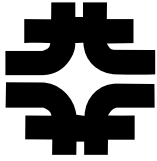
Reserved: D&T - A device with this status is reserved for use at MTF (e.g. a reference device). The device is normally a good, functioning device, but it is not part of the "spares pool" (although it could be, if needed).

Corresponding state: In Use

Reserved: Onsite - A device with this status is still "on the FNAL books", but it is not in use in the accelerator complex.

Corresponding state: In Use

Reserved: Offsite - A device with this status has been sent to another customer (e.g. CERN).



Corresponding states: Ready to Ship to Other, Ship to Other

Reserved: Other - This status is meant to be a "catch-all" status for all other devices that are reserved but do not fit into the previous categories.

Corresponding state: In Use

Awaiting Salvage - A device with this status has been dispositioned to be scrapped but is waiting to have the useful parts removed from it.

Corresponding states: Awaiting Salvage, Salvage, Awaiting Scrap

Scrapped - A device with this status has been removed from circulation and scrapped.

Corresponding state: Scrapped

Never Built - A device with this status was never built. This status is meant to be a book-keeping aid so that we identify and document that a device by this serial number was never built (and so we should not be wondering why we cannot find the device). For example, some serial numbers were designated for specific devices, but those devices may have ended up being skipped during fabrication.

Corresponding state: there is no state for this status

6.0 State Details

For the purposes of this system we have defined state as "the condition that a device can be in at any time." The following describe the details for each state in the diagram. They are meant to cover the principles that are applied in each state, and may not cover every detail involved. We still need to rely on the insight and experience of our employees to complete all the details involved.

6.1 Drawings, Kits, and Travelers

Remarks:

- Drawings are created, approved and issued for use.
- Quality Control Travelers are created/revised to reflect the approved drawings and current fabrication practices (NOTE: Some work on devices is done without the use of QCTs).
- Parts kits are created/revised to reflect the approved drawings.

Inputs:

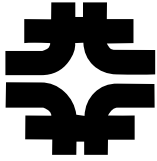
- An approved design for a device, as evidenced by the approved drawings

Outputs:

- Approved drawings, QCT's, and kit lists

Roles:

- **Designer/Drafter** - creates/edits the drawing(s) for the device



- **Drawing Approver(s)** - approves the drawing(s) for use
- **Process Engineer** - translates the drawing(s) into QCT(s)
- **QCT Approver(s)** - approves the QCT(s) for use
- **Parts kit generator** - generates a parts kit from the materials listed on the drawing(s)

Possible Statuses:

- No status given - this is a logical state, not an actual state.

6.2 Awaiting In Process

Remarks:

- Device is waiting to be worked on.
- Device is put into this queue after an assessment has been completed and an initial work order has been documented.
- Device can be waiting for resources, e.g. people, parts, scheduling.
- Devices need to be assigned a priority.

Inputs:

- A device
- Information regarding the device (e.g. relevant history, etc.)
- Work Order (includes at least a tentative work plan)
- Approved QCT's and drawings

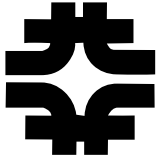
Possible Statuses:

- Needs Repair: Easy
- Needs Repair: Hard
- Needs Repair: Very Hard
- Needs Repair: Unknown Difficulty
- Needs Repair: Autopsy
- Awaiting E&F Completion: Scheduled

6.3 In Process

Remarks:

- Invasive work is done to the device.
- Information is gathered regarding the device (e.g. what failed in the device, what work was done to the device, how was the device changed as a result of the work).
- A summary report is initiated (narrative describing what was done and what was learned from doing the work).



- Information analyzed.
- The device is dispositioned appropriately.

Inputs:

- A device
- Information regarding the device (e.g. relevant history, etc.)
- Work Order (includes at least a tentative work plan)

Outputs:

- Records of work completed on the device
- Updated Device Service Record (to be done by whomever is responsible for the work on the device)

Roles:

- **Worker** - works on the device, and adds to the history of the device
- **Record generator** - translates the information gathered regarding the device into a format that can be easily understood (both structured and unstructured)
- **Work reviewer** - reviews the work done on the device for adequacy and completeness
- **Record reviewer** - reviews the records for adequacy and completeness
- **Decision maker** - makes decisions about the device based on the information gathered

Possible Statuses:

- Awaiting E&F Completion: In Process

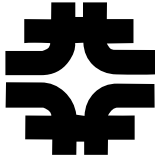
6.4 In Process - Inactive

Remarks:

- Device is waiting to be worked on.
- Device is put into this queue after work has been done on the device (i.e. it has been in "In Process - active").
- Device may be put into this queue due to changing priorities (e.g. a rush/emergency job will need to be completed first, and so the device must wait).
- Device can be waiting for resources, e.g. people, parts, scheduling.

Inputs:

- A device
- Information regarding the device (e.g. relevant history, etc.)
- Work Order (includes at least a tentative work plan)



Possible Statuses:

- Awaiting E&F Completion: In Process
- Awaiting E&F Completion: Scheduled
- Needs Evaluation: Special Reassessment

6.5 Awaiting Assessment

Remarks:

- Device comes into our purview:
 - Could be a potentially failed device from the Beams Division;
 - Could be a device from "In Process" which needs to be assessed before more work can be done.
- Device is waiting to be looked at (e.g. inspected) and for the appropriate information to be gathered (i.e. "Tree-shaking").

Inputs:

- A device
- If the device is coming from "In Process", then the details of what to look for during the assessment are defined

Possible Statuses:

- Needs Evaluation: Recently Deinstalled
- Needs Evaluation: E&F Work Complete
- Needs Evaluation: D&T Work Complete
- Needs Evaluation: Special Reassessment

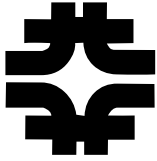
6.6 Under Assessment

Remarks:

- Device comes into our purview.
- Information is gathered:
 - History of the device;
 - Reason stated for it needing work (e.g. why was it pulled from the tunnel);
 - Non-invasive testing (e.g. electrical/leak test, survey with flashlight/mirrors).
- Information is analyzed.

Inputs:

- A device
- Information regarding the device



Outputs:

- Records of work done on the device (including test results)
- Updated Device Service Record (to be done by whomever is responsible for the work on the device)
- A disposition and/or a work order:
 - Disposition may be that it is "Ready to Use", E&F work is required, or that D&T work is required (E&F and D&T work should be defined on a work order)
 - E&F work that does not effect device performance (i.e. magnetic or quench performance) does not normally warrant D&T work, but when E&F work does effect performance then D&T work should be done.
 - If D&T work is not done, then normally TD can disposition the device as "Ready to Use". If D&T work is done, then normally the customer can disposition the device as "Ready to Use".

Roles:

- **Tree shaker** - this person is responsible for gathering and organizing the pertinent information regarding the device (e.g. history, stated reason for being brought to TD, etc.)
- **Decision maker** - makes decisions about the device based on the information gathered

Possible Statuses:

- No status - this is a logical state, not an actual state.

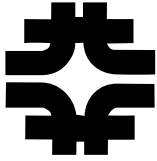
6.7 Awaiting Test

Remarks:

- Device can be waiting for test facility equipment and personnel.
- Devices need to be assigned a priority.
- Need to determine what work needs to be done to the device, and what data needs to be gathered.
- Define who is responsible for gathering the data.

Inputs:

- Measurement request - can be detailed or very lax
 - Who wants the information?
 - What information is wanted?



- A device
 - The device may need some preparation which cannot be done by D&T, e.g. beam pipe removal, special water fittings, special purpose power supply.
- Who is responsible for planning the work?
- Who is responsible for making sure the work gets done and information gets back to the requester?
- Who is responsible for making decisions about the device (based on information gathered)?

Possible Statuses:

- Awaiting D&T Completion: Not Scheduled
- Awaiting D&T Completion: Scheduled

6.8 Under Test

Remarks:

- Device is tested.
- Information is gathered.
- Information is analyzed.
- Information is reported to the requester in a timely manner.
- Need to ensure that information is reported in a format that is appropriate for making decisions.

Inputs:

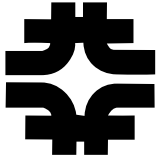
- A device
- Test facility resources
- Work plan (usually generated by joint effort of customer and the MTF test coordinator)

Outputs:

- Records of work done on the device
- Updated Device Service Record (to be done by whomever is responsible for the work on the device)
- Either one of the following:
 1. A disposition of "Ready To Use" (only if the appropriate authority, i.e. Decision Maker, has reviewed the test results)
 2. A request to the appropriate authority, i.e. Decision Maker, to review the test results and disposition the device

Roles:

- **Requester** - makes the request to MTF for information about a device



- **Coordinator** - coordinates the work to be done to the device
 - *Planner(s)* - makes work plan (usually with the customer)
 - *Preparer(s)* - prepares for the work
 - *Measurer(s)* - take the measurements of the device
 - *Analyzer(s)* - analyzes the information gathered, may include developing the analysis tools
- **Decision maker** - makes decisions about the device based on the information gathered

Possible Statuses:

- Awaiting D&T Completion: In Process

6.9 Ready to Use

Remarks:

- A device has been fabricated or repaired/reworked and has been approved for use.
- Devices in this state can be in storage in the Technical Division or in storage in the Beams Division (TD is only actively tracking the devices that we maintain within the Division - it is the responsibility of the BD to track the devices that they are storing in their areas).

Inputs:

- An approved device
- Fabrication or repair/rework records
- Updated Device Service Record

Roles:

- **Process Engineer** - scans and indexes (in Onbase) the records for the device
- **Record generator** - updates the device records appropriately (e.g. storage location, work done, etc.)

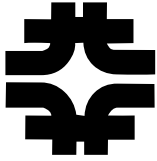
Possible Statuses:

- Ready To Use

6.10 In Use

Remarks:

- A device in this state is being used by the Beams Division (or possible Particle Physics Division), either in a tunnel or in a beamline.
- These devices are under the control of the Beams Division (or PPD).



Inputs:

- An approved device

Outputs:

- Records that define the reason that the device was uninstalled, e.g. needs repair, device replaced - still a good device, et cetera
- Updated Device Service Record (to be done by whomever is responsible for receiving the device)

Possible Statuses:

- Installed
- Reserved: Onsite
- Reserved: D&T
- Reserved: Other

6.11 Receive from Other

Remarks:

- A device is received from a customer outside of Fermilab (e.g. Los Alamos, Brookhaven).

Inputs:

- A device
- Information regarding the device (e.g. relevant history, details regarding the expected work - as defined by the customer, etc.)

Outputs:

- Updated Device Service Record (to be done by Process Engineering)

Roles:

- **Process Engineer** - adds/updates the Technical Division's records appropriately for the device

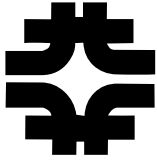
Possible Statuses:

- Needs Evaluation: Special Reassessment

6.12 Ready to Ship to Other

Remarks:

- This queue is for when a device has been fabricated for a customer outside of Fermilab (e.g. Los Alamos, CERN).



- The device is fabricated and tested appropriately and the appropriate authority has approved the device for shipment.
- The device must be packaged appropriately to ensure its functionality, reliability, and safety during transit.

Inputs:

- An approved device
- Information regarding the device which is to be sent with the device (e.g. fabrication records)
- Shipping instructions

Roles:

- **Worker** - appropriately packages the device for shipment, ensuring that the proper records are included
- **Record generator** - updates the records appropriately for the shipped device

Possible Statuses:

- Reserved: Offsite

6.13 Ship to Other

Remarks:

- A device has been fabricated for a customer outside of Fermilab (e.g. Los Alamos, CERN).

Inputs:

- An approved and properly packaged device
- Information regarding the device which is to be sent with the device (e.g. fabrication records)
- Shipping instructions

Outputs:

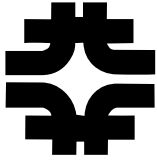
- Updated DSR (to be done by whomever is responsible for the shipment of the device)

Roles:

- **Worker** - follows the appropriate shipping procedures and ships the device to the customer
- **Record generator** - updates the records appropriately for the shipped device

Possible Statuses:

- Reserved: Offsite



6.14 Awaiting Salvage

Remarks:

- A complete device or device components have been dispositioned for salvage.
 - This disposition requires the approval of the device owner and Property Management.
- The materials are awaiting to be properly salvaged.

Inputs:

- Part(s) that have been dispositioned for salvage
- A record that shows what components are to be salvaged, and what inspections are to be done (if any)

Possible Statuses:

- Awaiting Salvage

6.15 Salvage

Remarks:

- A complete device or device components have been dispositioned for salvage.
- The appropriate components are removed from the device.
- The salvaged components are cleaned up and made ready to be used.
- The salvaged components may be tested to ensure that they are still adequate for use.
- Records for the device are updated appropriately.

Inputs:

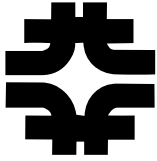
- Part(s) that have been dispositioned for salvage
- A record that shows what components are to be salvaged, and what inspections are to be done (if any)

Outputs:

- Records of the components that were actually salvaged
- Updated Device Service Record (to be done by whomever is responsible for the work on the device)

Roles:

- **Worker** - this person is responsible for appropriately salvaging and cleaning the parts
- **Inspector** - Inspects the salvaged parts appropriately
- **Record generator** - updates the records appropriately for the salvaged parts



Possible Statuses:

- Awaiting Salvage

6.16 Scrap

Remarks:

- A complete device or device components have been dispositioned for scrap.
- The materials are disposed of according to the appropriate procedures, e.g. ES&H procedures, business practice.
- Records for the device are updated appropriately.

Inputs:

- Part(s) that have been dispositioned for scrap

Outputs:

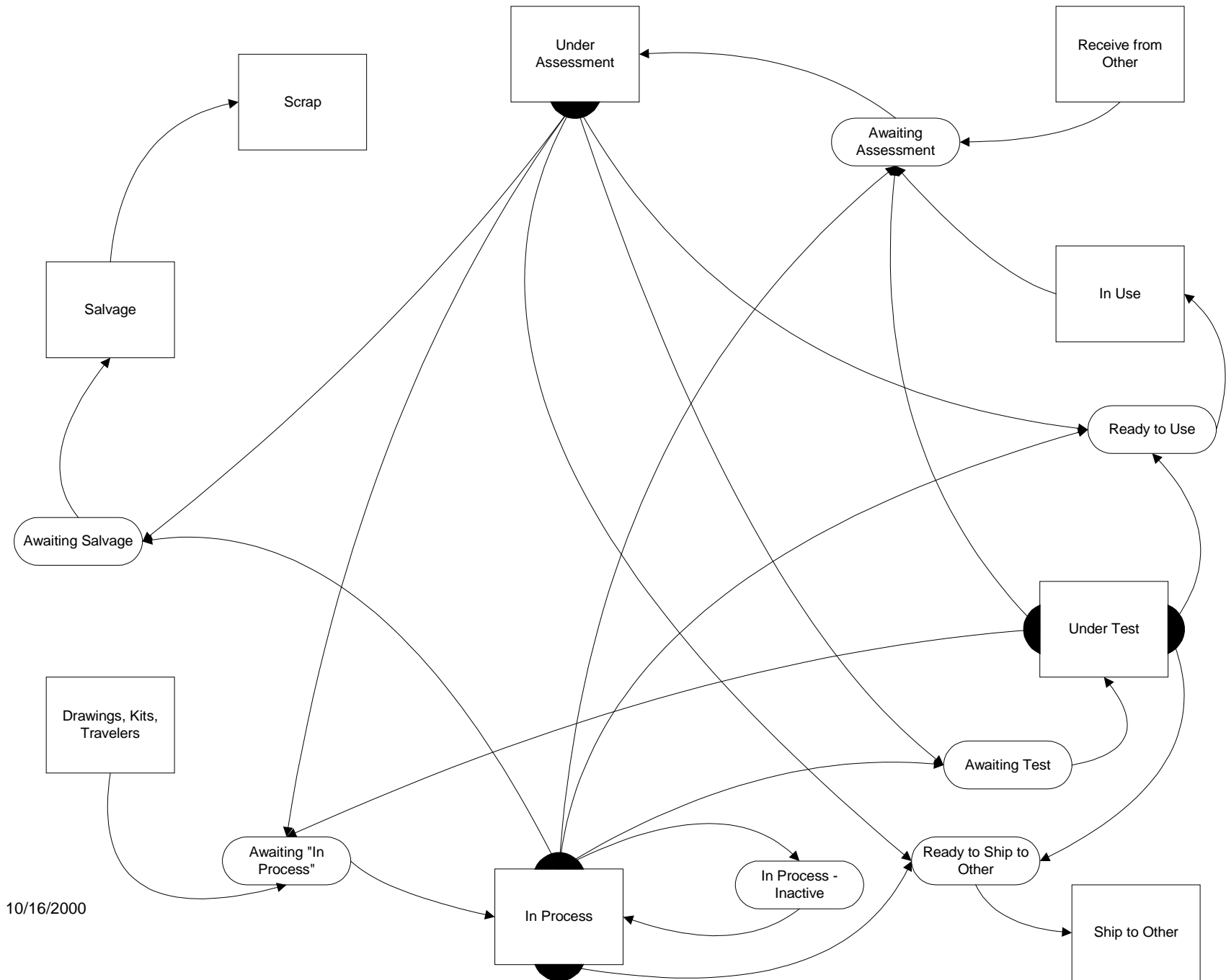
- Updated Device Service Record (to be done by whomever is responsible for scrapping on the device)

Roles:

- **Waste coordinator** - ensures that the materials are disposed of according to the appropriate procedures
- **Worker** - this person is responsible for appropriately disposing of the parts
- **Record generator** - updates the records appropriately for the scrapped parts

Possible Statuses:

- Scrapped



10/16/2000

Device State Diagram

IB1 Flow of Devices and Data

	What's happening to the device:	Who is responsible for the DSR update for this step:	Keywords to be updated:	Typical keyword values:	Information expected in DSR:	Typical DSR statements:	Other DSR statements:
1.	Device is "chosen" to be measured. Device chosen because of new construction, repair/upgrade, or due to special needs.	A Technician, if the measurement is part of a normal production process, otherwise a Physicist.	Status	"Awaiting D&T Completion: not scheduled"	The reason that this device is being measured.	"H8121D has arrived in IB1 from MSB. This magnet is to be quench tested in order to confirm or deny the existing quench data which indicate this quadrupole is unsuitable for use in the Tevatron, according to plan...provided by Ray Hanft."	"H8121D is to be quench tested in order to confirm or deny the existing quench data which indicate this quadrupole is unsuitable for use in the Tevatron" or "TSDR128 is to be aligned after being upgraded with a recoler."
2.	Device arrives at IB1.	Material Control, if moved by them. Technician if not moved by MC.	Location	"IB1"	Where the device was moved from and to.		"TSDR128 was moved from IB2 to IB1."
3.	Device placed on test stand.	Technician	Status	"Awaiting D&T Completion: scheduled"	The device was mounted on the test stand - only if there is a time delay between mounting and the testing.		"H8121D has been mounted on test stand 2, but the test will not start for another week due to liquid helium resource issues."
4.	Measurement plan defined. This may be a "special" plan for a small number of magnets, or it may be defined as part of the normal production process. The plan needs to be defined before the testing can begin.	A Technician, if the measurement is part of a normal production process, otherwise a Physicist.	N/A	N/A	What measurement(s) is expected to be done.		
5.	Testing started.	Technician	Status	"Awaiting D&T Completion: in process"	The device testing has started only if this will be a prolonged test.	"The quench data for H8121D have been analyzed and it has been determined that this magnet has excellent quench performance. This device is now 'Ready to Use'. This device is being moved from IB1 to A-0 for installation in the tunnel."	"The point scan and single stretched wire measurements of ILP001 have started."
6.	Testing finished.	Technician	Status	"Needs Evaluation D&T: work complete"	The device testing has finished - only if there is a time delay for analysis and disposition.		"The point scan and single stretched wire measurements of ILP001 have been completed according to checklist #..., and the data is being analyzed by Dave Harding to determine a disposition."
7.	Data analyzed and disposition given. The data may be analyzed by a Physicist, or a specification may be provided to the Technician beforehand.	A Physicist, if analyzed by him/her. A Technician, if specifications defined beforehand.	Status	"Ready to Use"; "Awaiting E&F Completion: unscheduled"; "Needs Evaluation: special reassessment"	A brief description of the results, and a disposition of the device. It would also be good to point to a file(s) that detail the measurements.		"The measurement data for ILP001 have been analyzed and it has been determined that this magnet has excellent harmonic performance. This device is now 'Ready to Use'."
8.	Device shipped out of IB1.	Material Control, if moved by them. Technician if not moved by MC.	Location	"MSB"; "A-0"; "IB2"; "TPL"	Where the device was moved from and to, and its expected fate, if known.		"ILP001 was moved from IB1 to TPL for storage."

IB1 Flow of Devices and Data

Notes:

- * It is not expected that there will be as many DSR entries as there are steps. By in large, there is a "doublet" of entries (examples given in the column 'Typical DSR statements').
- * The first statement of the "doublet" declares that the device has arrived in IB1 and reports the measurements that are planned to be done.
- * The second statement of the "doublet" declares that the measurement has been completed, the disposition of the device, where the device is being moved to, and its expected fate.
- * Sometimes the disposition of the device does not occur in time sequence with the labor of the measurement, and so a third entry can be expected.
- * Depending on the time delay between events and if the tasks are done by different people, the entries may be broken up (examples given in the column 'Other DSR entries').

IB2 Flow of Devices and Data

	What's happening to the device:	Who is responsible for the DSR update for this step:	Keywords to be updated:	Typical keyword values:	Information expected in DSR:	Typical DSR statements:	Other DSR statements:
1.	Device is chosen to be looked at in IB2. Device chosen because of new construction, repair/upgrade, or due to special needs.	Production Supervisor	Status	"Awaiting E&F Completion: not scheduled"	The reason that this device is being looked at.		"IQC023 is being sent to IB2 to be inspected to confirm or deny that it has a hipot failure." or "TSD291 is to be upgraded with a recoler."
2.	Device arrives at IB2.	Material Control, if moved by them. Production Supervisor if not moved by MC.	Location	"IB2"	Where the device was moved from and to.		"TSD291 was moved from MSB to IB2."
3.	Device inspected.	ProEng Technician	N/A	N/A	The device went through incoming inspection - only if there is a time delay between inspection and the work starting.		"IQC029 failed hipot and leak check. A decision is to be made by Dave Harding, et al, regarding the future of this device."
4.	Device chosen to be worked on. The incoming inspection usually determines whether or not a device will be worked on at this time.	Production Supervisor, if the work is part of a normal production process, otherwise a Physicist.	Status	"Awaiting E&F Completion: scheduled"	The device has been placed on the current job list.		"IQC023 will be salvaged and rebuilt with a new serial number."
5.	Work plan defined. This may be a "special" plan for a small number of magnets, or it may be defined as part of the normal production process. The plan needs to be defined before the work can begin.	Production Supervisor, if the work is part of a normal production process, otherwise a Physicist. Could be ProEng for new construction.	N/A	N/A	What work is expected to be done.		"Parts and travelers have been issued to production for the new construction of magnet ILA017."
6a.	Work started.	Production Supervisor	Status	"Awaiting E&F Completion: in process"	The work has started - only if this will be a prolonged effort.	"TSD291 has arrived in IB2 from MSB. It is to be retrofitted with a recoler according to print ME-291300 and traveler TR-333406. It is expected to become TSDR291 after the work is complete."	"The salvage work on IQC023 has started and is expected to take about 1 month to complete, at which point we will begin to construct the "new" magnet IQC039."
6b.	Serial Number Change. Add the new S/N to the AKA Serial Number field.	Process Engineering	AKA S/N		Expected new S/N.		The new S/N EDBB010 has been assigned to this device.
7a.	Work finished. Work on the device is completed; this includes all electrical/flow/leak testing. A disposition is assigned to the device, based on the results of the work and inspections.	Production Supervisor	Status; Rework/Mod	"Ready to Use"; "Awaiting D&T Completion: unscheduled". Example for Rework/Mod "Upgrade correction coil lead stack MB-351860".	A brief description of the results, and a disposition of the device. It would also be good to point to traveler(s) used.	"The device TSD291 has been retrofitted with a recoler according to print ME-291300 and traveler TR-333406. It has passed all electrical and flow testing, and has been renamed TSDR291. This device is being sent to IB1 for realignment."	"Contruction of device IQC039 has been completed according to print ME-274650 and traveler TR-318965. It has passed all electrical and flow testing."
7b.	Serial Number Change. Add the new S/N to the Serial Number field and change the DSR header.	Process Engineering	S/N		New S/N.		
8.	Device shipped out of IB2.	Material Control, if moved by them. Production Supervisor if not moved by MC.	Location	"MSB"; "A-0"; "IB1"; "TPL"	Where the device was moved from and to, and its expected fate, if known.		"IQC039 was moved from IB2 to MSB for measurement."

IB2 Flow of Devices and Data

Notes:

- * It is not expected that there will be as many DSR entries as there are steps. By in large, there is a "doublet" of entries (examples given in the column 'Typical DSR statements').
- * The first statement of the "doublet" declares that the device has arrived in IB2 and reports the work that is planned to be done.
- * The second statement of the "doublet" declares that the work and inspection have been completed, the disposition of the device, where the device is being moved to, and its expected fate.
- * Depending on the time delay between events and if the tasks are done by different people, the entries may be broken up (examples given in the column 'Other DSR entries').
- * New "Rework/Mod" keywords should be reviewed by ProEng for consistency prior to use.
- * Issues to handle when a device is to have a prefix changed (e.g. TSD to TSDR or an FRD# to EDBB):
 - When the kits and travelers are issued by Process Engineering, PE will add the assigned new S/N to the AKA Serial Number keyword. The serial number (both the keyword and in the header of the DSR) will not be changed at this point.
 - When the work on the device is complete (including inspections), PE will change the serial number keyword and the DSR header. This should coincide with PE receiving the completed traveler immediately after the "silver sticker" as affixed to the device.
 - New serial numbers assigned to devices that never are completed (e.g. EDBB010) are not to be reassigned to another device.
- * Our practice is to create a DSR for every device that TD touches. This will include devices with old serial numbers (e.g. FRD #'s). We will add the appropriate "magnet series" in the OnBase keywords, even though the device may not ever receive an upgrade. For example, all 6-3-120 magnets will have the series "SDFB" added to the "Magnet Series" keyword, even though some magnets may never be assigned a new serial number with an SDFB prefix.

Fermilab Audit Checklist

<i>Reference</i>	<i>Criteria</i>	<i>Results</i>		<i>Comments</i>
<p>2. The Records Coordinator (LaDaune Trierweiler) is responsible for:</p> <p>2a</p>	<p>What is your role in the records management process?</p> <p>Business Services definition of Records Coordinator: Acting as liaison between the File Custodian(s) and Records Manager and providing assistance to the File Custodian(s) when necessary.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Acts as a liason between the Fermilab Records Manager and Technical Division File Custodians when called upon.</p>
<p>2b</p>	<p>Performing reviews of the RIDS forms prepared by File Custodian(s) prior to forwarding them to the Records Manager.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The last RIDS completed 4/18/94 was prepared and reviewed in accordance with the procedure.</p> <p>There was a written request to review the 4/18/94 RIDS on 8/14/96. There hasn't been activity involving the Records Coordinator in several years.</p>
<p>2c</p>	<p>Acting as the point of responsibility for the records created by that Division or Section, communicating with the Records Manager on issues related to disposition of records series, and the disposal of non records/ inactive records following periods of major personnel reorganizations, etc.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Hasn't been contacted on issues related to disposition of records series, and the disposal of non records/ inactive records following periods of major personnel reorganizations, etc. since the request to review the 4/18/94 RIDS on 8/14/96.</p>

Fermilab Audit Checklist

<i>Reference</i>	<i>Criteria</i>	<i>Results</i>		<i>Comments</i>
		<i>Sat</i>	<i>Unsat</i>	
	How do you know what to do?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Refer to the Business Services web-site. If that doesn't answer my question(s), I call the Records Manager (Ann Riedl).
	How do you know that the outcome of your work is sufficient?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I don't receive negative feedback.
	What do you do if you have a problem?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Call the Records Manager (Ann Riedl).
	How does your work affect other people involved with the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	It gives them a point of contact for problems and provides for dissemination of information relating to records management for the Technical Division.
	Has each Department defined their practices for records management?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	This statement from TD policy does not appear to be implemented throughout the Division. This area should be given more review.
		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	



Fermilab

Fermi National Accelerator Laboratory
P.O. Box 500, Mail Station 233
Records Management
Batavia, IL 60510
Phone (708) 840-5249

DATE: August 14, 1996
TO: LaDaune Trierweiler
FROM: Elaine Phillips *EP*
SUBJECT: Return of RIDS Inventory forms

Here are the records inventory forms or RIDS completed some time ago for various departments in Technical Support. Even though quite some time has passed we feel it is important to return these to the originators so that they can see if their retentions are correct or have been changed.

This should provide the guidance needed for active current records being maintained by these areas.

There are also several hundred feet of purchase orders and older purchase requisitions being stored by TSS. Over 500 ft. if we can rely on the numbers submitted for the inventory. This must take up an incredible amount of space. Please remember that Procurement maintains all P.O.'s for 6 years and 3 months. Beyond this time, vendors can change and pricing will certainly be different so maintaining these "permanently" quickly loses its usefulness. You may want to keep this in mind for the next housecleaning period or I would be glad to come out and speak with your group on the advantages and disadvantages of maintaining records that are past their retention periods.

We appreciate the efforts made to conduct this inventory. One of DOE's major goals in this initiative was to identify the unscheduled records series and provide retention schedules for them. This is already bearing fruit - we will soon receive two new retention schedules as a result! The Research and Development Records Retention Schedule which we are expecting to receive in the next couple of months will help with some of the Tech Support records series.

If there are any remaining questions about records retentions, the returned forms or offsite storage, please let me know at ext. 5249 or by Quick-Mail.

Thanks again for your time and for the efforts of your staff in working with us on this project.

EP

RECORDS INVENTORY AND DISPOSITION SCHEDULE

Public reporting burden for this collection of information is estimated to average 1/12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including for reducing this burden, to U.S. Department of Energy, Office of Organization and Management Systems, Paperwork Reduction Project (1910-1700), 1000 Independence Ave. S.W., suggestions Room 4-D-024, Washington, DC 20503.

2a. Organizational Unit (Creating or Custodial Unit) Technical Support Section Headquarters	2b. Routing Symbol Not Applicable	3 Date 3/30/94
--	--------------------------------------	-------------------

4. Signatures (of appropriate personnel)

Sherrill Larson
Prepared by

J. Trimmer
Approved by

Records Liaison Officer

Date

Date

5. Item No.	6. Filing Series Title, Description, and Location of File, and Inclusive Dates	7. Disposition Authority	8. Authorized Disposition Instructions	9. Transfer Instructions
1	Office administrative files	2 years	GRS 23-1	Destroy when two years old or when no longer needed.
2	Committee and conference files	3 years	GRS 16-8,b(1)	Destroy when three years old or when no longer needed for reference, whichever is sooner.
3	Survey and inspection files	3 years	GRS 18-9	Destroy when three years old, or upon discontinuance of facility, whichever is sooner.
4	Audit files	10 years	DOE 11-1,a (2,a)	Destroy when ten years old.
5	Review files	5 years	GRS 16-14,(1)	Cut off when no further corrective action is necessary. Destroy five years after
6	Review files	1 year	GRS 16-14,(2)	Cut off when no further corrective action is necessary. Destroy one year after
7	Project control files	1 year	GRS 16-5	Destroy one year after the year in which the project is closed.
8	Records disposition files	Destroy when no longer needed for reference	GRS 16-2,b	Destroy when no longer needed for reference.

Do NOT Destroy. Under the freeze until EM Office notifies all file custodians.

5. Item No.	6. Filing Series Title, Description, and Location of File, and Inclusive Dates	7. Disposition Authority	8. Authorized Disposition Instructions	9. Transfer Instructions
9	Word processing files	Delete when no longer needed to create a hard copy	GRS 23-2,a	Delete when no longer needed.
10	Electronic spreadsheets	Delete when no longer needed to update or produce hard copy	GRS 23-4,a	Delete when no longer needed.
11	Catalogues	Until superseded	Non-record	Destroy in office.
12	Magazines	Until superseded	Non-record	Destroy in office.

RECORDS INVENTORY AND DISPOSITION SCHEDULE

Public reporting burden for this collection of information is estimated to average 1/12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including for reducing this burden, to U.S. Department of Energy, Office of Organization and Management Systems, Paperwork Reduction Project (1910-1700), 1000 Independence Ave. S.W., suggestions Room 4-D-024, MA-513.2, Washington, DC 20585; and to the Office of Management and Budget (OMB), Paperwork Reduction Project (1910-1700), Washington, DC 20503.

2a. Organizational Unit (Creating or Custodial Unit)

2b. Routing Symbol

3 Date

Technical Support Section Headquarters

Not Applicable

4/18/94

Shirley Larson

4. Signatures (of appropriate personnel)

Prepared by
Shirley Larson

Records Liaison Officer
R. Trimmer

Date

Date

Approved by

Records Officer Approval

5. Item No.	6. Filing Series Title, Description, and Location of File, and Inclusive Dates	7. Disposition Authority	8. Authorized Disposition Instructions	9. Transfer Instructions
1	Research and development records		GRS 19-2	Non-permanent.
2	Office administration files	2 years	GRS 23-1	Destroy when two years old, or when no longer needed, whichever is sooner.
3	Routine procurement files		GRS 3-3,c	Destroy upon termination or completion.
4	Solicited and unsolicited successful bids and proposals		GRS 3-5,a	Destroy with related contract case file.
5	Solicited and unsolicited unsuccessful bids and proposals		GRS 3-5,b(2)	Destroy with related contract case file.
6	Budget report files	3 years	GRS 5-3,b	Destroy three years after the end of the fiscal year.
7	Forms files	5 years	GRS 16-3,a	Destroy five years after related form is discontinued, superseded, or cancelled.
8	Committee and conference files	3 years	GRS 16-8,b	Destroy when three years old or when no longer needed for reference, whichever is sooner.
9	Word processing files	Delete when no longer needed to create a hard copy	GRS 23-2,a	Delete when no longer needed.
10	Schedules of daily activities	2 years	GRS 23-5,a	Destroy or delete when two years old.
11	Passenger reimbursement files	6 years	GRS 9-3,a	Destroy when six years old.

5. Item No.	6. Filing Series Title, Description, and Location of File, and Inclusive Dates	7. Disposition Authority	8. Authorized Disposition Instructions	9. Transfer Instructions
12	Catalogues	Unit/ superseded	Non-record	Destroy in office.
13	Magazines	Unit/ superseded	Non-record	Destroy in office.

RECORDS INVENTORY AND DISPOSITION SCHEDULE

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2a. Organizational Unit (Creating or Custodial Unit)

Technical Support Section Headquarters

2b. Routing Symbol

Not Applicable

3 Date

3/18/94

4. Signatures (of appropriate personnel)

Prepared by

Records Liaison Officer

Date

Approved by

Records Officer Approval

Date

5. Item No.	6. Filing Series Title, Description, and Location of File, and Inclusive Dates	7. Disposition Authority	8. Authorized Disposition Instructions	9. Transfer Instructions
1	Supervisors' personnel files and duplicate OPF documentation	review annually	GRS 1-18.a	Review annually and destroy superseded or obsolete documents; or destroy file relating to an employee within one year after separation or transfer.
2	Budget correspondence files	2 years	GRS 5-1	Destroy when two years old.
3	Budget background records	1 year	GRS 5-2	Destroy one year after the close of the fiscal year covered by the budget.
4	Budget reports files - all other	3 years after end of applicable fiscal year	GRS 5-3.b	Destroy three years after the end of the fiscal year.
5	Passenger reimbursement files	6 years	GRS 9-3.a	Destroy when six years old.
6	Research and development records		GRS 19-1.a	Permanent.
7	Research and development records	1 year	GRS 19-2	Non-permanent.
8	Viewgraphs		GRS 21-5	Destroy one year after use or when no longer needed.
9	Photographs	1 year	GRS 21-1	Destroy when one year old or when no longer needed.

5. Item No.	6. Filing Series Title, Description, and Location of File, and Inclusive Dates	7. Disposition Authority	8. Authorized Disposition Instructions	9. Transfer Instructions
10	Office administrative files	2 years	GRS 23-1	Destroy when two years old, or when no longer needed, whichever is sooner.
11	Word processing files	Delete when no longer needed to create a hard copy	GRS 23-2,a	Delete when no longer needed.
12	Administrative data bases	Delete information in the data base when no longer needed	GRS 23-3	Delete when no longer needed.
13	Electronic spreadsheets	Delete when no longer needed to update or produce hard copy	GRS 23-4,a	Delete when no longer needed.
14	Schedules of daily activities	2 years	GRS 23-5,a	Destroy or delete when two years old.
15	Internal control records	Until superseded	GRS 16-14,a	Destroy when superseded.
16	Blank forms	Until superseded	Non-record	Destroy in office.
17	Catalogues	Until superseded	Non-record	Destroy in office.
18	Magazines	Until superseded	Non-record	Destroy in office.
19	Budget Printouts	Until superseded	Non-record	Destroy in office.



Fermilab

RECORDS INVENTORY

1. a. Division, Section, Office or Group

Technical Support Section / Headquarters

2.a. Name of Records Coordinator
LaDaune Trierweiler

b. Mail Station #
316

c. Telephone & FAX Number
3022/3756

d. Name of File Custodian
Sherri Larson

e. Mail Station #
316

f. Telephone & FAX Number
3411/3756

3. Records Description

a. Title of Record Series

Research and development records

b. Dates (Inclusive)

c. Volume (linear ft.)

d. Records Medium

40½ feet

☒ Paper
☐ Electronic
☐ Photos

☐ Video
☐ Other

e. Series Description (Please use extra sheets if necessary)

These records include documentation that relates to projects (or parts of projects) that do not have historical value.

*If storage space becomes an issue, please call
Records Mgmt. We can place records offsite
and retrieve in 24 hrs. Elaine (x5249)*

f. Location of Records (Bldg., Office Name, Number, etc.)

Records storage / Industrial Center Building 2 West

4. Records Retention Citation or Regulatory Driver (DOE or GRS Schedule No., par. no., etc., or Public Law, Regulation, etc.)

GRS 19-2

Retain until notified by Records Mgmt.

5.a. If unscheduled, what retention would you recommend?

Possible archival

b. Reason for such retention. (Use additional sheet if necessary).

*value for permanent
retention.*

*This is primarily superconducting data
(magnets): from engineering concepts to design,
construction, testing, QA,
documentation.*

*Tech support records - generally all related
to magnets.*

*Holding these until some decision is made
on the LHC to see if FINAL will be
recommissioned to build superconducting
magnets. site-specific?*

*Elaine Phillips
8/8/95*

id value?

cy Command Center

s of the Laboratory, its employees, subcontractors, or

ect?

Signature

Today's Date

SLarson

4/6/94



Fermilab

RECORDS INVENTORY

1. a. Division, Section, Office or Group

Technical Support Section / Headquarters

2.a. Name of Records Coordinator

LaDaune Trierweiler

b. Mail Station

316

c. Telephone & FAX Number

3022/3756

d. Name of File Custodian

Sherri Larson

e. Mail Station

316

f. Telephone & FAX Number

3411/3756

3. Records Description

a. Title of Record Series

Research and development records

b. Dates (Inclusive)

c. Volume (linear ft.)

3 feet

d. Records Medium

☒ Paper ☐ Video
☐ Electronic ☐ Other
☐ Photos ☐

e. Series Description. (Please use extra sheets if necessary)

These records cover various phases of a project from initiation to termination. The records consist of, but are not strictly limited to; reports and correspondence relating to project feasibility, justification, initiation, and execution; budget documentation; project planning and approval documents, including research proposals (funded and unfunded); project design and change records, including specifications and drawings; technical program plans; invention, patent, and copyright information; peer, committee, and board reviews; experimental set up and methodology records; (continued on reverse side)

f. Location of Records (Bldg., Office Name, Number, etc.)

Industrial Center Building 2 West

4. Records Retention Citation or Regulatory Driver (DOE or GRS Schedule No., par. no., etc., or Public Law, Regulation, etc.)

GRS 19-1, a *SK*

5.a. If unscheduled, what retention would you recommend?

b. Reason for such retention. (Use additional sheet if necessary).

X N

6. ☐ ☒

Does the record series have epidemiological or health study value?

7. ☐ ☒

Will the record series be needed at the Fermilab Emergency Command Center

8. ☐ ☒

Does the record series document legal rights and interests of the Laboratory, its employees, subcontractors, or others?

9. ☐ ☒

Does the record series related to a Quality Assurance project?

Name of Records Surveyor

Sherri Larson

Date Inventoried

3/18/94

Signature

SK Larson

Today's Date

4/6/94



Fermilab

RECORDS INVENTORY

1. a. Division, Section, Office or Group

Technical Support Section / Headquarters

2. a. Name of Records Coordinator

LaDaune Trierweiler

b. Mail Station

316

c. Telephone & FAX Number

3022/3756

d. Name of File Custodian

Sherri Larson

e. Mail Station

316

f. Telephone & FAX Number

3411/3756

3. Records Description

a. Title of Record Series

Research and development records

b. Dates (Inclusive)

1991 to current

c. Volume (linear ft.)

49.3 feet

d. Records Medium

☒ Paper ☐ Video
☐ Electronic ☐ Other
☐ Photos ☐

e. Series Description (Please use extra sheets if necessary)

These records include documentation that relates to projects (or parts of projects) that do not have historical value.

f. Location of Records (Bldg., Office Name, Number, etc.)

Industrial Building Trailer 157

4. Records Retention Citation or Regulatory Driver (DOE or GRS Schedule No., par. no., etc., or Public Law, Regulation, etc.)

GRS 19-2

OK

5. a. If unscheduled, what retention would you recommend?

b. Reason for such retention. (Use additional sheet if necessary).

Y N
6. ☐ ☒

Does the record series have epidemiological or health study value?

7. ☐ ☒

Will the record series be needed at the Fermilab Emergency Command Center

8. ☐ ☒

Does the record series document legal rights and interests of the Laboratory, its employees, subcontractors, or others?

9. ☐ ☒

Does the record series related to a Quality Assurance project?

Name of Records Surveyor

Sherri Larson

Date Inventoried

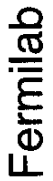
4/18/94

Signature

Sherri Larson

Today's Date

4/26/94



RECORDS STORAGE AND DISPOSITION (RSD)

[illegible]

Box ID: TD-SSCL

SSCL points of contact
SSCL System Requests
SSCL MERS Acquisition
SSCL MTS Acquisition
SSCL ASST facility Equip
SSCL N15 Alloc Issues
SSCL Machine Tools
SSCL ESR Magnetic Measuring
SSCL software info
SSCL cable wire info
SSCL systems
SSCL magnet info
SSCL N15 Misc info
SSCL Equipment info
SSCL shipping info
SSCL computer request info

RM #10443

Dept. Box #TD-SSCL

SSC File List

- Superconducting Super Collider Laboratory Systems Descriptions (Revised July 1994--Draft)
- SSCL Termination Property Schedules (SSC-CDM-0020 to SSC-CDM-0023)
- SSCL Equipment/MERS Database (Tagged Items)
- FNAL MERS Request-Round 1"
- SSCL Equipment/Additional Contractors II (Received from Property Office 3/10/95)
- SSCL Equipment MTS2 List (May 24, 1995)
- SSC Reports of Excess Personal Property
- SSCL Equipment/Additional Contractors I
- SSCL Systems
- SSCL Excess Equipment Listing
- Fermilab MTS Request
- SSCL Equipment-MTS Database (Material Tracking System-Untagged Items)
- SSCL Termination Property Schedules: General Dynamics Sch 1, 2
- SSCL Termination Property Schedules: General Dynamics Sch 24, 25, 26
- SSCL Termination Property Schedules: General Dynamics Sch 28, 29
- Inventory Schedules (2 Reports)
- General Dynamics Schedules (Miscellaneous)
- General Dynamics Schedules 51, 52, 53, 54
- General Dynamics Schedules 4-8
- General Dynamics Schedule 30
- General Dynamics Schedules 15 & 16
- General Dynamics Schedule 13
- General Dynamics Schedules 14, 17-19, 27, 33
- General Dynamics Schedules 31 & 32
- General Dynamics Schedule 37
- General Dynamics Schedule 48
- General Dynamics Schedule 49
- General Dynamics Schedule 35
- General Dynamics Schedules 58 & 59
- SSCL Property at Fermilab
- SSCL Equipment Lists
- SSCL Excess Equipment Sensitive Item Sign-Off Sheets
- Inventory Schedules

RM #10444

Dept. Box #TD-SSCL-1

SSC File List

- SSCL Bulletin Board for Equipment Exchange
 - SSCL Bulletin Board for Equipment Exchange
- SSCL Delivery Shortcomings
 - SSCL Delivery Shortcomings
- SSCL Fermilab Allocations (Database Obtained by Charles Matthews)
 - SSCL Fermilab Allocations (Database Obtained by Charles Matthews)
- No name Folder
 - SSCL—Receipt of SSCL Equipment
 - SSCL—Schedule List
 - Laser Trackers
 - MERS I Allocation
 - Beaird Industries/Minnesota Valley Eng./ACME Cryogenics/Barber Nichols—DOE Forwarded to URA
 - N15 Site—MERS/MTS Drafts
 - N15 System Info
- SSCL-Equipment Acquisition: Former Employee's Equipment
 - SSCL-Equipment Acquisition: Former Employee's Equipment
- SSCL Magnet Request—DCA320(ASST), DCA207, DCA209, DCA102 (MDL)
 - SSCL Request for 4 Magnets-- DCA320(ASST), DCA207, DCA209, DCA102 (MDL)
 - SSCL Magnet Acquisitions—Shipping Details
 - SSCL Request for 4 Magnets—Lifting Fixtures and Storage Magnet Stands
 - SSC Magnet Trailer
- SSCL-System Requests
 - SSCL-Systems 107 & 108
 - SSCL-System Requests
- SSCL Cable/Wire
 - SSCL Cable/Wire
 - SSCL Cable MCM 1100
- SSCL Computer Software
 - SSCL Computer Software
- SSCL-ESR Magnetic Measuring System Acquisition (UCLA)
 - SSCL-ESR Magnetic Measuring System Acquisition (UCLA)
- SSCL-Machine Tools
 - SSCL-Machine Tools
- SSCL Furniture
 - SSCL Furniture
- SSCL N15 MERS Attachment D
 - SSCL N15 MERS Attachment D
- SSCL N15 Call
 - N15 System Request
 - SSCL N15 Call
 - N15 Systems—Packet from Directorate
 - N15 Communication
 - N15 System Request—RD/AD
 - N15 Machine Tool Wish List
- SSCL N15 Systems Request
 - SSCL N15 Systems Request
- SSCL N15 Equipment
 - SSCL N15 Line Items Lamm Request—Matrix Panels 2/23/96
 - SSCL N15 Communication

RM #10445

Dept. Box #TD-SSCL-2



Fermilab

MATERIAL MOVE REQUEST NO. M 56878

Please fill out form completely

DATE 3-1-00	REQUESTED BY [Signature]	ID # 10442	MS # 10442	PHONE EXT. 140	BUDGET CODE X12
EXACT LOCATION OF MATERIALS BLDG OR SITE # AREA OR FLOOR #		DIMENSIONS		APPROXIMATE WEIGHT	

Special Instructions for Requester/Originator: The requester is responsible for insuring that all Division/Section requirements for off-site Material Move Request Forms are met. Requirements may be obtained from Division/Section ES&H Offices. The Requester must arrange with authorized personnel to complete any required radiation check. Questions concerning the identification of other hazards should be referred to your Division/Section ES&H Office or the Shipping Dept. at x3470. (Hazardous material shipping requirements apply to on-site transfers.)

Contains Radioactive or Hazardous Material? ☐ Yes ☒ No

If Yes, Check Hazard Type(s) Below:

Yes No

Answered By (PRINT)

ID No.

Signature

☐ Radioactive; Nature & Extent

Authorized Surveyor (PRINT)

ID No.

Signature

Survey Instrument / No.

☐ Explosive

☐ Flammable Gas

☐ Non-Flammable Gas/Cryogen

☐ Flammable Liquid

☐ Flammable Solid

☐ Oxidizer

☐ Poison/Infectious

☐ Corrosive

☐ Other

PO LINE ITEM #	QUANTITY	DESCRIPTION	PROPERTY NO.	SERIAL NO.
	4	10442 10443 10444 10446		

When Material is returned to Fermilab, deliver to:

Name _____ Ext. _____ Location _____

SHIP TO _____

ADDRESS _____
(Do not use P.O. Box No.)

CITY _____

STATE & ZIP CODE _____

ATTENTION _____
(Required Information)

AREA CODE & TELEPHONE NO. _____

PURCHASE ORDER NO. 310-44

RETURN AUTHORIZATION NO. _____

PROCUREMENT APPROVAL
(Shipments involving Purchase Orders require Procurement approval)

LOAN OR EXPERIMENT NO. _____

DATE REQUIRED AT DESTINATION _____

MODE OF SHIPMENT: ☐ PREPAID ☐ COLLECT
☐ NORMAL ☐ OVERNITE ☐ VENDOR PICKUP

REASON FOR SHIPMENT:

☐ IN WARRANTY REPAIR

☐ OUT OF WARRANTY REPAIR

☐ FABRICATION

☐ LOAN

☐ RETURN OF LOAN

☐ RETURN FOR CREDIT

☐ RETURN FOR REPLACEMENT

☐ OTHER NOTES _____

REQUISITIONER

Please fill out form completely

DATE fill in	REQUESTED BY fill in	ID # fill in	MS # fill in	PHONE EXT. fill in	BUDGET CODE fill in
EXACT LOCATION OF MATERIALS BLDG OR SITE # AREA OR FLOOR #		DIMENSIONS			APPROXIMATE WEIGHT

Special Instructions for Requester/Originator: The requester is responsible for insuring that all Division/Section requirements for off-site Material Move Request Forms are met. Requirements may be obtained from Division/Section ES&H Offices. The Requester must arrange with authorized personnel to complete any required radiation check. Questions concerning the identification of other hazards should be referred to your Division/Section ES&H Office or the Shipping Dept. at x3470. (Hazardous material shipping requirements apply to on-site transfers.)

Contains Radioactive or Hazardous Material? ☐ ☐ respond to this question - YES or NO

If Yes, Check Hazard Type(s) Below: Yes No Answered By (PRINT) ID No. Signature

☐ Radioactive; Nature & Extent

Authorized Surveyor (PRINT)	ID No.	Signature	Survey Instrument / No.
<input type="checkbox"/> Explosive	<input type="checkbox"/> Flammable Gas	<input type="checkbox"/> Non-Flammable Gas/Cryogen	<input type="checkbox"/> Flammable Liquid
<input type="checkbox"/> Oxidizer	<input type="checkbox"/> Poison/Infectious	<input type="checkbox"/> Corrosive	<input type="checkbox"/> Other

POLINE ITEM #	QUANTITY	DESCRIPTION	PROPERTY NO.	SERIAL NO.
	Total number of boxes	Each box listed separately as a four or five digit number. This number should be the same one as on the labels supplied for your records boxes. An Input Manifest MUST ACCOMPANY this Material Move Request. The manifest is provided to you from the Records Management Office, MS #211, X2628.		

When Material is returned to Fermilab, deliver to:

Name Ext. Location

HIP TO Recall Total Information Management

PURCHASE ORDER NO. 515544

ADDRESS 880 East State Parkway
(Do not use P.O. Box No.)

RETURN AUTHORIZATION NO.

CITY Schaumburg

PROCUREMENT APPROVAL
(Shipments involving Purchase Orders require Procurement approval)

STATE & ZIP CODE IL 60173

LOAN OR EXPERIMENT NO.

ATTENTION Erik Schultz
(Required information)

DATE REQUIRED AT DESTINATION

AREA CODE & TELEPHONE NO. (847) 885-6000

MODE OF SHIPMENT: ☐ PREPAID ☐ COLLECT
☐ NORMAL ☐ OVERNITE ☐ VENDOR PICKUP

Transfer of files to off-site records storage facility

REASON FOR SHIPMENT:

☒ IN WARRANTY REPAIR ☐ OUT OF WARRANTY REPAIR ☐ FABRICATION ☐ LOAN ☐ RETURN OF LOAN
☐ RETURN FOR CREDIT ☐ RETURN FOR REPLACEMENT ☐ OTHER NOTES

Box ID: TD-SSCL

SSCL points of contact
SSCL System Requests
SSCL MERS Acquisition
SSCL MTS Acquisition
SSCL ASST facility Equip
SSCL N15 Alloc Issues
SSCL Machine Tools
SSCL ESR Magnetic Measuring
SSCL software info
SSCL cable wire info
SSCL systems
SSCL magnet info
SSCL N15 Misc info
SSCL Equipment info
SSCL shipping info
SSCL computer request info

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- General Dynamics Schedules 51, 52, 53, 54
- General Dynamics Schedules 4-8
- General Dynamics Schedule 30
- General Dynamics Schedules 15 & 16
- General Dynamics Schedule 13
- General Dynamics Schedules 14, 17-19, 27, 33
- General Dynamics Schedules 31 & 32
- General Dynamics Schedule 37
- General Dynamics Schedule 48
- General Dynamics Schedule 49
- General Dynamics Schedule 35
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- SSCL Equipment Lists
- SSCL Excess Equipment Sensitive Item Sign-Off Sheets
- Inventory Schedules

TD-SSCL-1

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 - SSC Magnet Trailer
- SSCL-System Requests
 - SSCL-Systems 107 & 108
 - SSCL-System Requests
- SSCL Cable/Wire
 - SSCL Cable/Wire
 - SSCL Cable MCM 1100
- SSCL Computer Software
 - SSCL Computer Software
- SSCL-ESR Magnetic Measuring System Acquisition (UCLA)
 - SSCL-ESR Magnetic Measuring System Acquisition (UCLA)
- SSCL-Machine Tools
 - SSCL-Machine Tools
- SSCL Furniture
 - SSCL Furniture
- SSCL N15 MERS Attachment D
 - SSCL N15 MERS Attachment D
- SSCL N15 Call
 - N15 System Request
 - SSCL N15 Call
 - N15 Systems—Packet from Directorate
 - N15 Communication
 - N15 System Request—RD/AD
 - N15 Machine Tool Wish List
- SSCL N15 Systems Request
 - SSCL N15 Systems Request
- SSCL N15 Equipment
 - SSCL N15 Line Items Lamm Request—Matrix Panels 2/23/96
 - SSCL N15 Communication

TP SSCL-2

- SSCL N15 Meeting 1/29/96
- SSCL N15 Equipment (Allocated to TS-Hornback Database)
- SSCL N15 Systems Information Sheets: Shipping, etc.
- SSCL N15 2
 - SSCL N15 2 Call Line Items
- SSCL Power Supplies
 - SSCL Equip Trade—Power Supply/Dewar
 - SSCL Power Supplies
 - SSCL Power Supplies
- SSCL Coordinate Measuring Machine
 - SSCL Coordinate Measuring Machine
- SSCL Software
 - SSCL Software

Document Retrieval

Document Type Groups:

- ProEng Data
- ProEng Digital Images
- ProEng Documents**
- ProEng Master Documents
- System Documents
- TD Device Data
- TD Quality Assurance

Document Types:

- End Pack Stacking
- Final Inspection & Shipment
- Incoming Magnet Inspection
- Magnet Cryostat
- Magnet Final Assembly**
- Magnet Impregnation
- Magnet Rework/Modification

Dates:

September 2002
August 2002
July 2002
June 2002
May 2002

From: / /
To: / /

Keywords:

Project = And
Magnet Series = MQXB And
Serial No. = And
Rework ID = And

Find Text Search Note Search Clear Keywords Clear All Exit

Document Search Results

Magnet Final Assembly - Magnet Series: MQXB

MQXB02 - 0 - Magnet Final Assembly - 333498 - A - 08/28/2002 - MQXB - LARGE HADRON COLLIDER
 MQXB04 - 0 - Magnet Final Assembly - 333498 - B - 08/26/2002 - MQXB - LARGE HADRON COLLIDER
 MQXB-P1 - 0 - Magnet Final Assembly - 333618 - NONE - 02/15/01 - MQXB - LARGE HADRON COLLIDER

1 Documents Selected

MQXB04 - 0 - Magnet Final Assembly - 333498 - B - 08/26/2002 - MQXB - LARGE HADRON COLLIDER

Keywords: Serial No. MQXB04

TD/Engineering & Specification # 5520-TR-333498
March 20, 2002
Rev. B

Fermi National Accelerator Laboratory
Batavia, IL 60510

LARGE HADRON COLLIDER
FINAL COLD MASS ASSEMBLY TRAVELER

Reference Drawing(s):
Final Cold Mass Assembly
(ME-369655)

ProEngDocs Vol 30 Copy 1 Checked Out [Rev 1 of 1] 0 Note(s) 0 Signature(s) Page 1 48 Page(s)